CIRM RFA 07-03

Application # FA1- 00617-1 (CIRM Special Programs)

PROPOSAL:

This application for a Special Program seeks CIRM funding for one floor of a new four-story science building. The building will house an interdisciplinary program involving faculty from five departments and numerous scientific collaborators. Currently focused on basic and discovery research, the applicant intends to build on the strengths of a diverse group of researchers with expertise in bioinformatics and genomics, chromatin and RNA regulation, development, and new technologies. The CIRM project consists of 13,079 assigned square feet (asf) and 19,829 gross square feet (gsf) with a total cost of $12,896,500 and requests CIRM funding of $8,665,000. At occupancy, the facility will house six Principal Investigators (PIs) and their research teams of which three will be new hires. Completion of the project is scheduled for December 2010.

Space Summary Chart

Space Category	Amount of Space (asf)	Percent of Total	ASF per PI at 6
Lab, Lab Support, PI Offices	8,006	61%	1,334
Core Facilities	3,806	29%	634
Other Offices	558	4%	93
Administration and Other Support	709	5%	118
Total	13,079	100%	2,180

STAFF ANALYSIS

VALUE:

Costs:

Cost Summary Chart

Cost Category	Total Amount	Amount/ PI
Building	$9,956,000	1,659,333
Group 2 Equipment	$2,940,500	$490,083
Total	$12,896,500	$2,149,416
CIRM Amount	$8,665,000	$1,444,167
Applicant Amount	$4,231,500	$705,250

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The estimated total project cost is $12,896,500 with a building cost of $8,665,000, project management and administrative costs of $858,000 and a contingency set aside of $433,000. Group 2 equipment to be purchased as part of the project is a significant portion of the project budget at $2,940,500.

The overall cost per gsf is $502, which is considerably lower than other new laboratory projects. The applicant seeks funding for changes needed in the design of a proposed new building to accommodate the stem cell program. That building has already been funded by the applicant and the CIRM-funded project is the additional funding needed to accommodate the program. Consequently, the appropriate comparison is to an alteration of an existing building even though the CIRM-funded space will be in a new building. This represents about 54 percent of the average cost ($936/gsf) for new facilities included in the CIRM Institutes and Centers category.

The amount budgeted for equipment is the highest ($148/gsf) relative to the other CIRM Special Programs proposals ($41/gsf and $56/gsf) because the applicant has included funding for the initial complement of equipment for what is essentially a new building and additional equipment with a value of $160,000 will be relocated to the new space.

The CIRM cost for laboratory and related space (excluding cores) per PI is $1,023,913 which is in the mid range when compared to the other two proposals in the CIRM Special Projects category ($380,875 and $1,271,850).

Sustainability and Innovation

The design is expected to achieve a LEED certification at the Silver level.

The project design includes elements that the applicant demonstrates are equivalent to or exceed green building standards. Sustainability elements include building placement to reduce solar gains by building in a heavily forested area, tightly managed storm water handling, highly reflective roof surfaces, and extensive insulation resulting in a 28% improvement over Title 24 building performance criteria.

Elements of the application cited as innovative include induction diffuser cooling that operate with greater localized control and energy efficiency than conventional air handler systems. Life cycle cost models suggest significant savings in maintenance costs as well as energy costs. The applicant has sought out savings by design processes and rebates which reduce construction and operational cost.

LEVERAGE:

The application includes leverage of $2,498,500. This represents the institutional investments in excess of the required matching funds after conforming fees and

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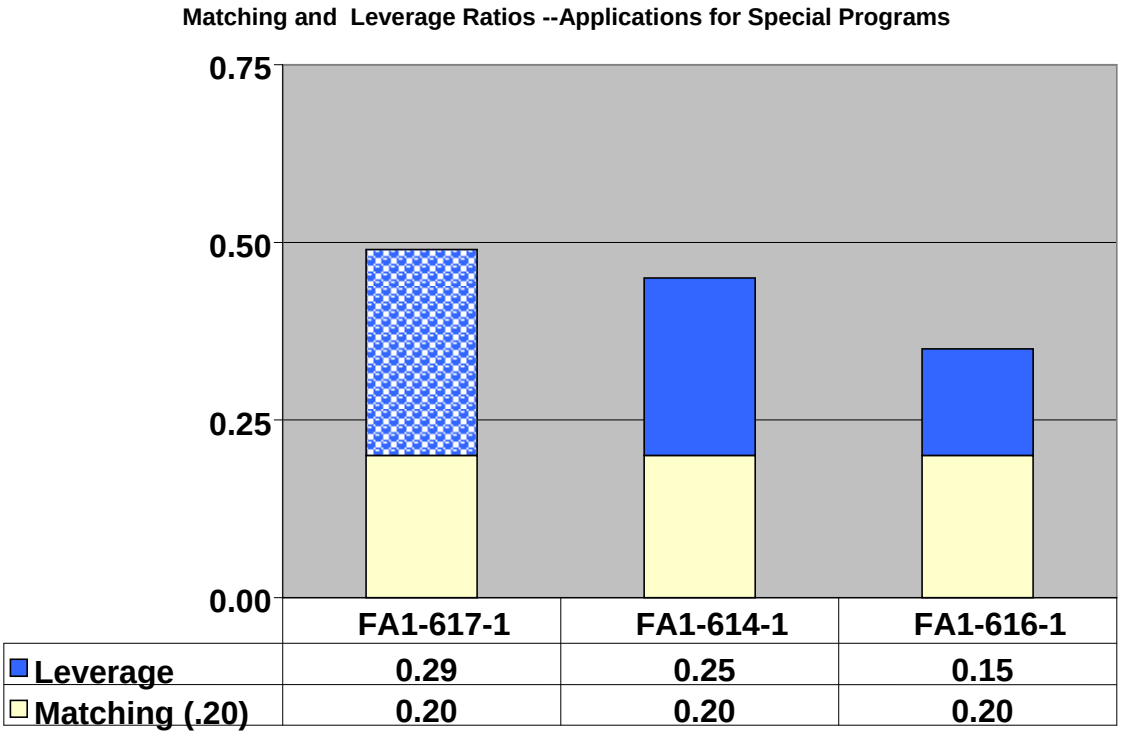
administrative costs to allowable amounts. The CIRM funds to leverage ratio is 1:0.29. When both matching and leverage funds are considered, this ratio rises to 1:0.49. The following table compares the leverage for this application (crosshatched) to the other applicants in the category of CIRM Special Programs.



	FA1-617-1	FA1-614-1	FA1-616-1
Leverage	0.29	0.25	0.15
Matching (.20)	0.20	0.20	0.20

URGENCY:

The applicant began planning the project in 2007 and has obtained governing board approval for the shell and build-out of three non-CIRM floors. The applicant has completed construction documents for the CIRM spaces and is awaiting CIRM approval to proceed to contract award. The project schedule indicates that the project will start in January 2009 and be completed in December 2010.

The applicant indicates that the environmental document prepared for this project was the subject of a legal challenge and was invalidated. The campus is engaged in a process to complete the environmental review process. The time needed to resolve issues associated with the environmental document is not known.

The project does not qualify for priority consideration because completion is not projected within two years from approval of the grant. The planned completion schedule

for the CIRM-funded project is a function of the schedule for the larger four-story facility in which the CIRM space is only one floor.

The applicant's team for managing delivery of the project has considerable depth of experience both with the applicant and with other laboratory projects of similar and larger scope.

The project is proposed to be undertaken utilizing a contract management/general contractor at risk agreement. The applicant's team for managing delivery of the project is experienced in similar types of laboratory facilities which were completed on schedule and on or under budget. The design team is well versed in science lab genre and has successfully designed many California-based science laboratories. The team has the necessary skills and experience to successfully complete a project of this magnitude.

SHARED RESOURCES:

Existing facilities include a vivarium, transgenic mouse facility, microarray facility, chemical screening center, confocal microscopy facility, proteomics facility, and the laboratory for adaptive optics. The applicant indicates that these existing facilities will continue to be available to stem cell research. This proposal adds 1,200 asf more in core space than the average for CIRM Special Programs.

The institution has resources that are available for CIRM researchers. These actions reduce the cost to CIRM and increase the value for the mission.

Costs:

- CIRM Shared Stem Cell Facility (Under Construction)
- Vivarium
- Shared Conference Space
- Microarray Facility
- Transgenic Mouse Facility
- CBSE Computing Clusters, supporting Genome Browser
- Confocal and Electron Microscopes
- Electron Spin Resonance
- Laser Spectroscopy
- X-ray Crystallography
- Nuclear Magnetic Resonance
- Proteomics

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FUNCTIONALITY:

The proposed facility design responds to program needs through the use of open and flexible research laboratories. Support space is provided in an amount equal to the planned laboratory space. Cores are located in the basement for ease of access from within the building. The building is conveniently located in close proximity to associated basic research programs operated by the institution.

In addition to laboratory space for new researchers, the new facility will provide several new core resources that will add capabilities not available from existing cores and space for support functions. The new cores include cell culture facilities, a FACS facility, an additional microscopy core and a sequencing center. A new vivarium will include microinjection and assisted reproductive technologies space, an associated animal holding room, an irradiation facility, advanced surgical suites and separate long- and short-term holding rooms.

SUMMARY OF ISSUES FOR THE FACILITIES WORKING GROUP EVALUATION

Urgency: How will the FWG weigh the scheduled completion date, which is two years and four months from projected award?

Urgency: Because the CEQA documentation is not final, how will the FWG weigh the risk of associated delays?

Functionality: Is there sufficient synergy in relationships with other institutions given the applicant's geographic location?